

10/586142

IAP11 Rec'd PCT/PTO 17 JUL 2006

SEQUENCE LISTING

<110> Iida, Akihiro
Ban, Hiroshi
Inoue, Makoto
Hirata, Takahiro
Hasegawa, Mamoru

<120> Methods for Producing Minus-Strand RNA Viral Vectors Using Hybrid Promoter Comprising Cytomegalovirus Enhancer and Chicken Beta-Actin Promoter

<130> 50026/060001

<150> PCT/JP2005/000705
<151> 2005-01-20

<150> JP 2004-014653
<151> 2004-01-22

<160> 41

<170> PatentIn version 3.3

<210> 1
<211> 367
<212> DNA
<213> Cytomegalovirus

<400> 1
actagttatt aatagtaatc aattacgggg tcattagttc atagccata tatggagttc 60
cgcggttacat aacttacggt aaatggcccg cctggctgac cgcccaacga ccccccggcca 120
ttgacgtcaa taatgacgta tggccata gtaacgcaa tagggacttt ccattgacgt 180
caatgggtgg agtatttacg gtaaaactgcc cacttggcag tacatcaagt gtatcatatg 240
ccaagtacgc cccctattga cgtcaatgac ggtaaaatggc ccgcctggca ttatgcccag 300
tacatgacct tatggactt tcctacttgg cagtagatct acgtatttagt catcgctatt 360
accatgg 367

<210> 2
<211> 1248
<212> DNA
<213> Gallus gallus

<400> 2
tcgagggtgag cccccacgttc tgttcactc tccccatctc cccccctcc ccaccccaa 60
ttttgtatTTT atttattttt taattttttt gtgcagcgat gggggcggggg ggggggggggg 120
ggcgcgcgcc aggcggggcg gggcggggcn agggggcgggg cggggcgagg cggagaggtg 180

cggcggcagc caatcagagc ggccgcgtcc gaaagttcc ttttatggcg aggccggcggc	240
ggccggcggcc ctataaaaag cgaagcgcgc ggcgggcccc gagtcgctgc gacgctgcct	300
tgcggccgtg ccccgctccg ccgcgcgcctc gcgcgcgcgc ccccggtct gactgaccgc	360
gttactccca caggtgagcg ggcgggacgg cccttcctt ccgggctgta attagcgctt	420
ggtttaatga cggcttggtt ctttctgtg gctgcgtgaa agccttgagg ggctccggga	480
gggcgccttg tgcggggggga gcggctcggtt gggtgtgtgc gtgtgtgtgt gcgtggggag	540
cgccgcgtgc ggctccgcgc tgcccgccgg ctgtgagcgc tgccggcgcgc gcgcggggct	600
ttgtgcgctc cgcaagtgtgc gcgaggggag cgccggccggg ggcggtgccc cgccgtgcgg	660
ggggggctgc gaggggaaca aaggctgcgt gcgggggtgt tgctgggggg ggtgagcagg	720
gggtgtgggc gcgtcggtcg ggctgcaacc cccctgcac cccctcccc gagttgctga	780
gcacggcccg gcttcgggtg cgggctccg tacggggcgt ggccgggggc tcgcgtgcc	840
ggccgggggg tggcggcagg tgggggtgcc gggcggggcg gggccgcctc gggccggggga	900
gggctcgaaaa gggggcgcg gcggccccc gagcgcggcgc ggctgtcgag gcgcggcgag	960
ccgcagccat tgcctttat ggtaatcgtg cgagaggcg cagggacttc ctgttgcctca	1020
aatctgtgcg gagccgaaat ctgggaggcg ccgcgcacc ccctctagcg ggcgcggggc	1080
gaagcgggtgc ggcgcggca ggaaggaaat gggcggggag ggccttcgtg cgtcgcgcgc	1140
ccgcgcgtccc cttctccctc tccagcctcg gggctgtccg cggggggacg gctgccttcg	1200
ggggggacgg ggcaggcg gggttcggctt ctggcgtgtg accggcg	1248

<210> 3
 <211> 95
 <212> DNA
 <213> Oryctolagus cuniculus

<400> 3
 cctctgctaa ccatgttcat gccttcttct ttttcctaca gtcctgggc aacgtgctgg
 ttattgtgct gtctcatcat ttggcaaaag aattc

<210> 4
 <211> 1744
 <212> DNA
 <213> Artificial

<220>
 <223> an example of CA promoter

<400> 4

actagttatt aatagtaatc aattacgggg tcattagttc atagcccata tatggagttc	60
cgcgttacat aacttacggt aaatggcccg cctggctgac cgcccaacga cccccgccc	120
ttgacgtcaa taatgacgta tggccata gtaacccaa tagggactt ccattgacgt	180
caatgggtgg agtatttacg gttaactgcc cacttggcag tacatcaagt gtatcatatg	240
ccaagtacgc cccctattga cgtcaatgac ggttaatggc cgcctggca ttatgcccag	300
tacatgacct tatggactt tcctacttgg cagtagatct acgtatttagt catcgctatt	360
accatggtcg aggtgagccc cacgttctgc ttcactctcc ccatctcccc cccctcccc	420
cccccaattt tgtatttatt tatttttaa ttattttgtg cagcgatggg ggcgggggg	480
gggggggggc gcgcgcagg cggggcgggg cggggcgagg ggcggggcgg ggcgaggcgg	540
agaggtgcgg cggcagccaa tcagagcggc ggcgtccgaa agtttccttt tatggcgagg	600
cggcggcggc ggccgccta taaaaagcga agcgcgcggc gggcggggag tcgctgcac	660
gctgccttcg ccccggtcccc cgctccgccc ccgcctcgcg ccgcggcccc cggctctgac	720
tgaccgcgtt actcccacag gtgagcgggc gggacggccc ttctcctccg ggctgttaatt	780
agcgcttgggt ttaatgacgg cttgtttctt ttctgtggct gcgtgaaagc cttgaggggc	840
tccgggaggg ccctttgtgc gggggagcg gctcgggggg tgctgtgcgtg tgtgtgtgcg	900
tggggagcgc cgcgtgcggc tccgcgtgc ccggcggctg tgagcgctgc ggcgcggcgc	960
cggggctttg tgcgctccgc agtgtgcgcg aggggagcgc ggcggggggc ggtgcggcgc	1020
ggtgtcggggg gggctgcgag gggAACAAAG gctgcgtgcg gggtgtgtgc gtgggggggt	1080
gagcaggggg tgtggcgcg tcggtcgggc tgcaaccccc cctgcaccccc ctcggggag	1140
ttgctgagca cggccggct tcgggtgcgg ggctccgtac gggcgtggc gcggggctcg	1200
ccgtgccggg cgggggggtgg cggcaggtgg gggtgcggg cggggcgggg ccgcctcggg	1260
ccggggaggg ctcggggag gggcgcggc gccccggag cgccggcggc tgtcgaggcg	1320
cggcgagccg cagccattgc cttttatggt aatcggtcga gagggcgcag ggacttcctt	1380
tgtcccaaat ctgtgcggag ccgaaatctg ggaggcgccg ccgcaccccc tctagcggc	1440
gcggggcgaa gcgggtgcggc gccggcagga aggaaatggg cggggagggc ctctgtgcgt	1500
cgcggcgccg ccgtccctt ctccctctcc agcctcgggg ctgtccgcgg gggacggct	1560
gccttcgggg gggacggggc agggcggtt tcggcttctg gcgtgtgacc ggcggctcta	1620
gagcctctgc taaccatgtt catgccttct tcttttcct acagctcctg ggcaacgtgc	1680
tggttattgt gctgtctcat cattttggca aagaattcgg cttgatcga gcttgcac	1740

catg

1744

<210> 5
<211> 24
<212> RNA
<213> Artificial

<220>
<223> an example of a hammerhead ribozyme

<220>
<221> misc_feature
<222> (5)..(5)
<223> g or a or u or c

<220>
<221> misc_feature
<222> (8)..(19)
<223> g or a or u or c

<220>
<221> misc_feature
<222> (24)..(24)
<223> g or a or u or c

<400> 5
cugangannn nnnnnnnnnng aaan

24

<210> 6
<211> 23
<212> DNA
<213> Bacteriophage T7

<400> 6
taatacgact cactataggg aga

23

<210> 7
<211> 23
<212> DNA
<213> Bacteriophage T3

<400> 7
aattaaccct cactaaaggg aga

23

<210> 8
<211> 23
<212> DNA
<213> Bacteriophage SP6

<220>

<221> misc_feature
<222> (22)..(22)
<223> a or g or c or t

<400> 8
atttaggtga cactatagaa gng

23

<210> 9
<211> 34
<212> DNA
<213> Bacteriophage P1

<400> 9
ataacttcgt ataatgtatg ctatacgaag ttat

34

<210> 10
<211> 34
<212> DNA
<213> Saccharomyces cerevisiae

<400> 10
gaagttccta ttctctagaa agtataaggaa cttc

34

<210> 11
<211> 10
<212> RNA
<213> Artificial

<220>
<223> an example of Sendai virus S sequence (w= a or c; v=a or c or g)

<400> 11
ucccwvvuuwc

10

<210> 12
<211> 10
<212> RNA
<213> Artificial

<220>
<223> an example of Sendai virus S sequence

<400> 12
ucccaguuuc

10

<210> 13
<211> 10
<212> RNA
<213> Artificial

<220>
<223> an example of Sendai virus S sequence

<400> 13
ucccacuuac 10

<210> 14
<211> 10
<212> RNA
<213> Artificial

<220>
<223> an example of Sendai virus S sequence

<400> 14
ucccacuuuc 10

<210> 15
<211> 10
<212> DNA
<213> Artificial

<220>
<223> an example of Sendai virus S sequence

<400> 15
agggtcaaag 10

<210> 16
<211> 10
<212> DNA
<213> Artificial

<220>
<223> an example of Sendai virus S sequence

<400> 16
agggtgaatg 10

<210> 17
<211> 10
<212> DNA
<213> Artificial

<220>
<223> an example of Sendai virus S sequence

<400> 17
agggtgaaag 10

<210> 18
<211> 9
<212> RNA
<213> Artificial

<220>
<223> an example of Sendai virus E sequence

<400> 18
auucuuuuu 9

<210> 19
<211> 9
<212> DNA
<213> Artificial

<220>
<223> an example of Sendai virus E sequence

<400> 19
taagaaaaaa 9

<210> 20
<211> 10
<212> DNA
<213> Artificial

<220>
<223> an example of Sendai virus S sequence

<400> 20
ctttcaccct 10

<210> 21
<211> 15
<212> DNA
<213> Artificial

<220>
<223> an example of Sendai virus E sequence

<400> 21
tttttcttac tacgg 15

<210> 22
<211> 54
<212> DNA
<213> Artificial

<220>
<223> an artificially synthesized sequence

<400> 22
tctcgagtgc ctcggtagca tggccaaagg gaccagtgcc gttccgggtgc tcac 54

<210> 23

<211>	85					
<212>	DNA					
<213>	Artificial					
<220>						
<223> an artificially synthesized sequence						
<400>	23					
aatgcatgat	cagtaaaatta	caatgaacat	cgaacccag	agtcccgctc	agtccctgctc	60
ctcgccacg	aagtgcacgc	agttg				85
<210>	24					
<211>	40					
<212>	DNA					
<213>	Artificial					
<220>						
<223> an artificially synthesized sequence						
<400>	24					
ccggaattca	acaaaatggcc	gggttgttga	gcacccatcg		40	
<210>	25					
<211>	42					
<212>	DNA					
<213>	Artificial					
<220>						
<223> an artificially synthesized sequence						
<400>	25					
ccggaattcc	tagatttc	ctatccc	actgtgt	cg	42	
<210>	26					
<211>	50					
<212>	DNA					
<213>	Artificial					
<220>						
<223> an artificially synthesized sequence						
<400>	26					
ctagcttagcc	caccatggat	caagatgc	tcattctaaa	agaagattct	50	
<210>	27					
<211>	50					
<212>	DNA					
<213>	Artificial					
<220>						
<223> an artificially synthesized sequence						

<400> 27		
ctagcttagcc tagttggtca gtgactctat gtccttctt acgagttcca		50
<210> 28		
<211> 29		
<212> DNA		
<213> Artificial		
<220>		
<223> an artificially synthesized sequence		
<400> 28		
cattttggca aagaatttgat taattcgag		29
<210> 29		
<211> 47		
<212> DNA		
<213> Artificial		
<220>		
<223> an artificially synthesized sequence		
<400> 29		
tcacagcacc caagaatctc ttctggcgag caccggcatt ttgtgtc		47
<210> 30		
<211> 47		
<212> DNA		
<213> Artificial		
<220>		
<223> an artificially synthesized sequence		
<400> 30		
gacacacaaat gccggtgctc gccagaagag attcttgggt gctgtga		47
<210> 31		
<211> 42		
<212> DNA		
<213> Artificial		
<220>		
<223> an artificially synthesized sequence		
<400> 31		
gatcgtaatc acagtctctc gagagttgta ccatctacct ac		42
<210> 32		
<211> 52		
<212> DNA		
<213> Artificial		

<220>		
<223> an artificially synthesized sequence		
<400> 32		
tcacagcacc gaagaatctc ctccggcgac gaccggcatt ttgtgtcgta tc		52
<210> 33		
<211> 52		
<212> DNA		
<213> Artificial		
<220>		
<223> an artificially synthesized sequence		
<400> 33		
gatacgacac aaaatgccgg tcgtcgccgg aggagattct tcggtgctgt ga		52
<210> 34		
<211> 23		
<212> DNA		
<213> Artificial		
<220>		
<223> an artificially synthesized sequence		
<400> 34		
aaatcctgga gtgtcttttag agc		23
<210> 35		
<211> 39		
<212> DNA		
<213> Artificial		
<220>		
<223> an artificially synthesized sequence		
<400> 35		
ggccgcgtcg acatcgatgc tagcctcgag ccgcggtag		39
<210> 36		
<211> 31		
<212> DNA		
<213> Artificial		
<220>		
<223> an artificially synthesized sequence		
<400> 36		
cgcggctcga ggctagcatc gatgtcgacg c		31
<210> 37		
<211> 22		

<212> DNA		
<213> Artificial		
<220>		
<223> an artificially synthesized sequence		
<400> 37		22
cttaactatg cggcatcaga gc		
<210> 38		
<211> 22		
<212> DNA		
<213> Artificial		
<220>		
<223> an artificially synthesized sequence		
<400> 38		22
gccgattcat taatgcagct gg		
<210> 39		
<211> 37		
<212> DNA		
<213> Artificial		
<220>		
<223> an artificially synthesized sequence		
<400> 39		37
ctataggaaa ggaattccta tagtcaccaa acaagag		
<210> 40		
<211> 38		
<212> DNA		
<213> Artificial		
<220>		
<223> an artificially synthesized sequence		
<400> 40		38
gatgagtccg tgaggacgaa actataggaa aggaattc		
<210> 41		
<211> 40		
<212> DNA		
<213> Artificial		
<220>		
<223> an artificially synthesized sequence		
<400> 41		40
gcggggccctc tcttgtttgg tctgatgagt ccgtgaggac		